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ABSTRACT

A process for building futurism into the institution's strategic planning and human resource development model is described. It is an attempt to assist faculty and staff to understand the future and the formulation and revision of professional goals in relation to an image of the future. A conceptual framework about the changing nature of human society is presented, and attention is directed to the way that futurism is incorporated into the institution's strategic planning model at North Central Technical College. It is suggested that a shift is occurring from physical productivity of material goods to information productivity, which will bring about fundamental changes in human values and political and economic structures. In fall 1977, North Central Technical College decided to undertake comprehensive institutional planning and identified categories for assumptions for the future, as well as goals and objectives. Assumptions at the institutional and departmental levels about future conditions lead to an institutional commitment relative to selected strategic goal areas. The strategic goal areas are refined to targets of commitment which can be translated into specific objectives. For instance, if an institution establishes computer literacy as a strategic goal, each department can identify specific goals and objectives. The relationship between assumptions and goals and objectives is illustrated in relation to equal educational opportunity. Sources of information on trends and assumptions about the future are identified. The purpose of gathering demographic, social, economic and other planning data is to develop specific alternative scenarios for the institution. Lists of assumptions, goals, and highest priorities for institutional functions at North Central Technical College are appended. (SW)

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BUILDING FUTURISM INTO THE INSTITUTION'S STRATEGIC PLANNING AND HUMAN RESOURCE DEVELOPMENT MODEL

by

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ABSTRACT

Purposeful human and organizational activity proceeds from a conceptual framework of a scenario toward which a person strives or the societal "ends" to which an organization can be dedicated. Many, perhaps most, individuals and organizations, however, have given little thought to the multiple scenarios which are possible and have, therefore, only fuzzy images of short term goals. Explanation tends to follow fact and is more often a journal entry than a blueprint or a grand design representing intelligent anticipation of activities and events planned carefully in advance to move from one point to another. Individuals and institutions alike need some way to clarify future scenarios.

This paper describes one such process for building futurism into the institution's strategic planning and human resource development model, an attempt to assist faculty and staff to understand the future and the formulation and revision of professional goals in relation to an image of the future. It would appear incontrovertible that maximum synergism is achieved when individual futuring/development systems are in harmony and synchronization with the organizational futuring/developmental system.

INTRODUCTION

> For the first time in history education is now engaged in preparing men for a type of society which does not yet exist. Educational action to prepare for work and active life should aim less at training young people to practice a given trade or profession than at equipping them to adapt themselves to a variety of jobs, at developing their capacities continuously, in order to keep pace with developing production methods and working conditions.
>
> This presents educational systems with a task which is all the more novel in that the function of education down the ages has usually been to reproduce the contemporary society and existing social relationship.... At a time when the mission of education should be to train "unknown children for an unknown world," the force of circumstances demands that educationists do some hard thinking, and that in so doing they shape the future.
>
> Edgar Faure, et. al., Learning To Be: The World of Education Today and Tomorrow (Paris: UNESCO, 1972) pp. 13 and 196.

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As I began to work on the outline of this paper, it seemed logical to build it around four limited, but achievable objectives:

1. To present a conceptual framework about the changing nature of human society,
2. To review the way futurism is incorporated into the institution's strategic planning model at North Central Technical College,
3. To discuss the role futurism plays in human resource development, and
4. To present perspectives about the educational and scientific importance of this work.

A Conceptual Framework

Colleges and universities were created to fill a role that society deemed necessary. At one time they stood as the primary source of knowledge/information generation and transmission. In recent years, however, the rapid rate of change and the learning society's insatiable demand to remain current with the knowledge explosion has caused the emergence of a broad range of "higher education" providers. Research indicates that only about 1 person in 4 seeking higher education and training is enrolled in our colleges and universities.[1] In addition, during recent years many students and taxpayers have become concerned

about the "return on investment" in colleges in terms of value added to individuals and the returns to society in general. If postsecondary education is to remain viable in the years ahead, it must understand the history of human society and develop a proactive, strategic planning capability to help it pass from one type of society to the next.

The history of the development of human society can be traced from the hunting society through the agricultural society to the industrial society. In the hunting society, mankind was concerned primarily with extracting things from nature. The transformation to the agricultural society was slow and based on rather simple technological innovation. The hunting and agriculture societies can be characterized as interactions between people and nature. In comparison, the transformation from the agricultural society to the industrial society occurred more quickly and was the result of technological advances in energy, transportation, communications, raw materials, and research and development networks. The industrial society can be characterized as interactions between people and goods or fabricated nature. More recently, advances in the industrial society have been the result of the integration of macro technological systems, the aggregation of complex technological developments in each of the above mentioned networks.

During recent years we have experienced the onset of a transformation to a new type of society. Masuda indicates:

> Mankind is now entering a period of transformation from an industrial society to an information society.... Man is now standing at the threshold of a period of innovation in a new societal technology based on the combination of computer and communications technology, quite unlike any of the past. Its substance is information, which is invisible. This new societal technology will bring about societal transformation which, in a double sense, is unprecendented.[2]

This transformation to the information society is concerned with the shift from physical productivity of material goods to information productivity and

can be expected to bring about fundamental changes in human values, in trends of thought, and in the political and economic structures of society. This learning and information society will be characterized as interactions between people and ideas and knowledge.

Building Futurism Into An Institution's Strategic Planning Process

In Fall 1977, North Central Technical College made a commitment to comprehensive institutional planning. The College examined numerous planning models from private and public regional universities and two-year colleges. The best models for planning specified assumptions on which to base subsequent planning before setting goals and objectives. The College defined the term "assumption" and generated a list of categories for arraying assumptions. A definition for the term "assumption," categories for stating assumptions and selected examples of assumptions are displayed in FIGURE 1.

Sources of trends and assumptions are numerous. In 1967 the Institute of Life Insurance conducted a Future Outlook Study to assess significant social and political trends because it seemed clear that reactive styles were not appropriate in times of rapid change. One result of the Future Outlook Study was a call for an ongoing mechanism to be established by which the business could keep abreast of emerging ideas and social changes that might affect its operating environment. In 1970, an early-warning system called the Trend Analysis Program (TAP) was designed and put into place. TAP continues to operate as a program of the American Council of Life Insurance, formed in 1976 by a merger of the Institute of Life Insurance and the American Life Insurance Association. TAP has produced reports on Aging and the Aged; The Employee; The Life Cycle; The International Scene; Frontier Technologies: Part One - Science and Health; Frontier Technologies: Part Two - Information Science; A Culture in Transformation: Toward A Different Societal Ethic; Transportation; Changing Residential Patterns and Housing; Planning; Death, Dying and Life Extension; and The Changing Nature of Work. TAP is useful as a model in that

FIGURE 1

Assumption Defined

An assumption is a proposition describing future conditions, some of which the institution has little control over. The level of certainty assigned to an assumption determines the level of precision it is allowed in subsequent planning. The greater the uncertainty about the assumption the greater must be the range of flexibility/hedging/options the institution retains against the non-assumed condition. Raising the certainty level of an assumption yields greater planning precision, better long term goals effectiveness and improved cost efficiency and program effectiveness. A planning assumption proposition can be internal to the institution or external to it. One criterion which is used in making a decision about inclusion or exclusion of a specific proposition at the institutional or cost center levels rests on whether or not the assumption has a direct bearing on setting goals and objectives at that level.

Categories for Assumptions

1. Assumptions about the societal context within which NCTC exists
2. Assumptions about external agencies
3. Assumptions about institutional leadership/management
4. Assumptions about NCTC programs (existing and potential)
5. Assumptions about potential students and enrollment
6. Assumptions about student services
7. Assumptions about staffing and professional development
8. Assumptions about physical plant
9. Assumptions about equipment
10. Assumptions about fiscal resources

Selected Examples of Assumptions

It is assumed that equal educational opportunity as a right of all persons will be a dominant theme of federal and state legislation in the years ahead. This will mandate a focus on "packaging" higher education programs as we shift from the 20th century goal of "education for all" to the 21st century goals of "education for each." It will necessitate careful attention to remedial education, programs to overcome academic deficiencies as well as developmental education, programs to develop the diverse talents of students.

We have moved from an era to thinking about education as something given in the early years of youth and lasting throughout life to thinking about education as occurring throughout a life span. It is assumed this trend will continue as an increasing number of Americans anticipate job or career changes, states mandate continuing professional education, and lifetime learning is viewed as a basic social right as well as an economic necessity.

It is assumed that the procedure for measuring educational accomplishments will change in dramatic ways. The system of amassing largely time-related academic units to reach the required total for a degree will yield to different output measures related to levels of competency in reference to designated bodies of knowledge and sets of skills.

the screening function is carried out by over one hundred life insurance executives who monitor almost one hundred periodicals.[3]

Another major source of trends information is the Work in American Institute, Inc., a nonprofit organization founded in 1975 to advance productivity and the quality of working life. The Institute's Studies in Productivity include reports on Mid-Career Perspectives: The Middle-Aged and Older population; Productivity and the Quality of Working Life; Trends in Product Quality and Worker Attitude; Managerial Productivity; Worker Alienation; Human Patterns of Work; New Patterns of Work; Occupational Stress and Productivity; Redesigning Work: A Strategy for Change; Jobs and the Environment; and Changing Attitudes Toward Work.[4]

Other major sources of trend information include Trends 2000 - New Challenges, New Needs, New Images: America in Transition;[5] Priorities for Future Technology Assessment;[6] Alternative Scenarios of the American Future;[7] The Exciting 80's: A Kiplinger Forecast for the Next Decade;[8] Productivity in the Changing World of the 1980's;[9] Science and Technology: Annual Report to the Congress;[10] and The Surgeon General's Report Healthy People;[11] The Essential Community: Local Government in the Year 2000;[12] The Global Report to the President of the United States;[13] The President's Commission for a National Agenda for the Eighties;[14] and American Renewal.[15]

The recent emphasis in technology transfer has spurred interest in trend analysis information about a broad range of technological developments. In addition to the Congressional Office of Technology Assessment, sources of technology development trends include the National Technical Information Service of the U.S. Department of Commerce, "Technology Forecasts and Technology Surveys,"[16] the more than 200 Federal research and development laboratories and centers representing 11 Federal agencies in the Federal Laboratory Consortium,[17] Footnotes to the Future and Future Abstracts,[18] Future Survey

and other publications by the World Future Society,[19] and professional associations such as the Technology Transfer Society.[20]

The purpose of gathering demographic, social, economic, and governmental planning trend analysis data is to develop specific alternative scenarios for the institution. For example, demographic data from one source indicates that change in the number of high school graduates between 1979 and 1995 will range from a decline of 59% in Washington, D.C. to an increase of 58% in Utah. Eleven states will experience a decline of more than 30% in the number of high school graduates during that period.[21] Frances lists twelve different strategies for increasing enrollment in colleges as follows:

> Increased high-school-graduation rates of students who would otherwise drop out
> Increased credentialing by testing of high school dropouts
> Increased enrollment of low- and middle-income students
> Increased enrollment of minority youths
> Increased enrollment of traditional college-age students
> Increased enrollment of current students
> Increased retention of adults
> Increased enrollment of women 20-34
> Increased enrollment of men 35-64
> Increased enrollment of graduate students
> Increased enrollment of persons currently being served by industry
> Increased enrollment of foreign students[22]

Bowen indicates that colleges experienced enrollment declines in 1934, 1944, and 1952 and suggests four options for postsecondary education: (1) redirect resources toward higher quality, (2) redirect resources toward research and public service, (3) redirect resources toward new student clientele, and (4) retrenchment.[23]

The analysis of demographic, social, and economic, and governmental planning data and trends help to clarify the fuzzy images of alternative scenarios for the institution. Selected information can be displayed against a timeline which indicates when the technology is most likely to impact on the institution. In the business areas, for example, when will word processing, microprocessing, computer graphics, voice synthesizers, and interactive computers impact on the institution? Impact can mean when the college should

use a particular technology to improve its own efficiency and effectiveness of management or when the technology should be available for students to acquire competencies to enter the world of work. An analysis of assumption statements at the institutional and department levels led to the display of information presented in FIGURE 2.[24]

The process of specifying assumptions is to diagnosis as the derivation of goals and objectives is to development. That is to say, the specification of assumptions helps to clarify the fuzzy images of alternative scenarios of the future and helps to sharpen the focus of goals and objectives. The derivation of institutional and individual goals and objectives is the creative heart of the process. North Central Technical College found it useful to develop a list of categories for stating goals and objectives (1) as a means for similarity of goals and objectives for all departments within the College. The seven categories of goals are (1) mission attainment, (2) functional relationships, (3) qualitative improvements, (4) market analysis, (5) professional development (6) public relations, and (7) funding sources. (See FIGURE 3)

An example of the relationship between assumptions and goals and objectives can be seen in the statement relative to equal educational opportunity. At the institutional level it raises the question "What data does the institution collect and analyze on a regular schedule to insure equal educational opportunity?" At the departmental level, objectives can be specified for remedial efforts based on unique characteristics of students. At the individual level, professional faculty and staff can set objectives relative to personal understanding of individual differences and how to "package" services to diagnosed differences.

FIGURE 2

THE DECADES OF RAPID TECHNOLOGICAL CHANGE

The Electronic Society

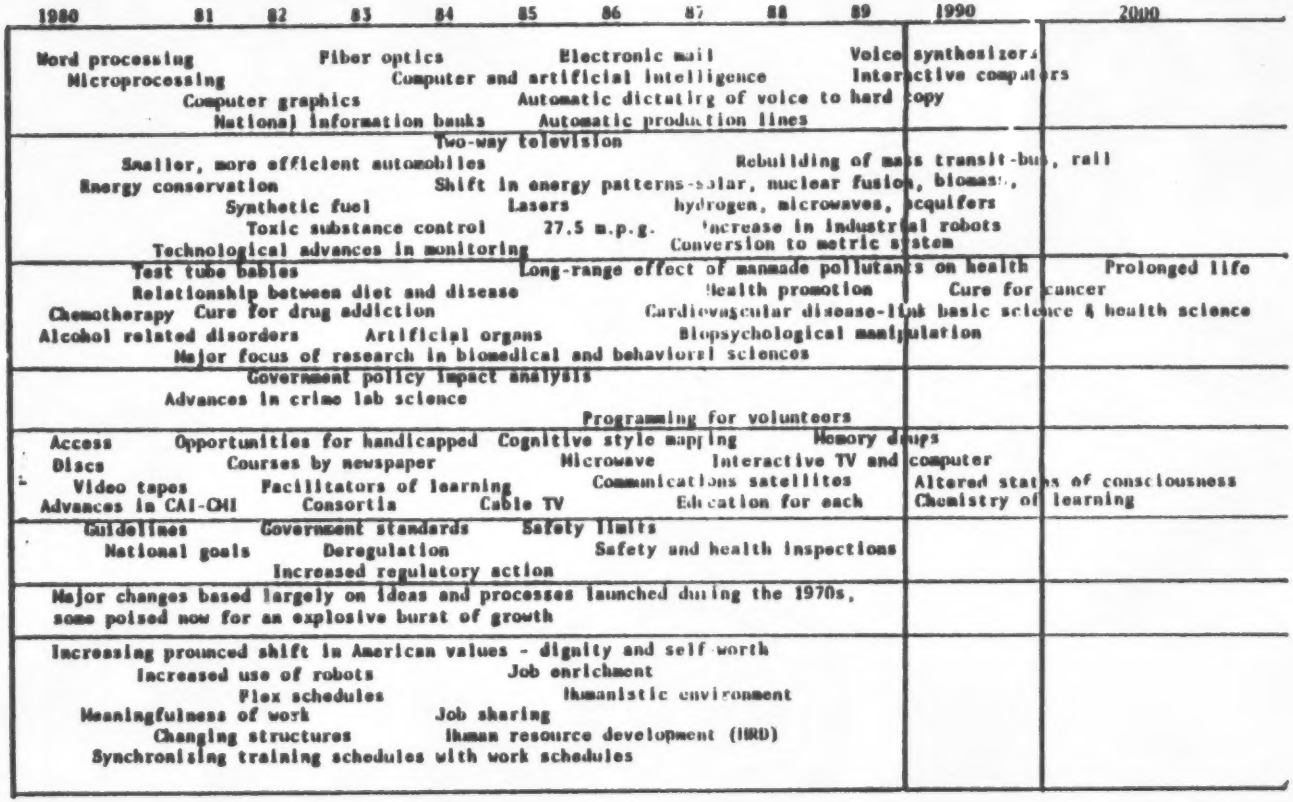


FIGURE 3 CATEGORIES FOR SPECIFYING GOALS AND OBJECTIVES

1. MISSION ATTAINMENT
   a. Promote understanding of mission statement within the college
   b. Promote understanding of mission statement outside the college
   c. Facilitate mission attainment (assumptions, goals and objectives, dollars to goals)
   d. Develop means to evaluate mission attainment
2. FUNCTIONAL RELATIONSHIPS
   a. Identify agencies and organizations
      (1) School systems
      (2) Business and industry
      (3) Service organizations
      (4) Professional organizations
      (5) Governmental agencies
      (6) Religious oriented organizations
      (7) Accreditation associations
      (8) Other
   b. Develop policy and procedures
   c. Specify strategy for pursuing positive functional relationships
      (1) School Systems
      (2) Business and industry
      (3) Service organizations
      (4) Professional organizations
      (5) Governmental agencies
      (6) Religious oriented organizations
      (7) Accreditation associations
      (8) Other
3. QUALITATIVE IMPROVEMENTS
   a. Academic Programs
      (1) Curriculum content and content formats
      (2) Alternative teaching strategies and techniques
      (3) Alternative ways for evaluating competencies
      (4) Minimum competency standards
      (5) Interdisciplinary considerations
   b. Student Services
      (1) Define comprehensive services in light of contemporary needs
      (2) Analyze what exists in light of contemporary needs
      (3) Diagnose needs of students
      (4) Link institutional resources to diagnosed student needs
   c. Institutional Management
      (1) Implement Planning, Management, and Evaluation (PME) System
      (2) Team leadership participatory mode of planning/management
      (3) Review policies, functions, organizational structure, and procedures
      (4) Program cost analysis
4. MARKET ANALYSIS
   a. Specify method of market analysis
   b. Develop programs in relationship to identified needs
   c. Specify policy and procedures for marketing (promoting) programs
   d. Analyze traditional college bound students by school district
   e. Identify non-traditional client markets
   f. Develop strategies to penetrate further traditional/non-traditional students
   g. Develop strategies to assist organizations diagnose training needs
5. PROFESSIONAL DEVELOPMENT
   a. Diagnose need
   b. Develop programs
   c. Allocate resources
   d. Affirmative action
6. PUBLIC RELATIONS
   a. List the college's major publics
   b. Examine alternative ways to communicate with publics
   c. Specify policy and procedure for systematic cultivation of various publics
7. FUNDING SOURCES
   a. Specify resource requirements over multi-year time-line
   b. Examine alternative funding sources
   c. Create policy and procedure for pursuing grantsmanship
   d. Incorporate grant management into college operations

Futurism and Human Resource Development

What has been described in the preceeding section deals primarily with the structural component of a long-range, strategic planning process through the future-oriented mechanism of stating assumptions about possible alternative conditions prior to setting goals and objectives, to which fiscal and human resources are allocated. This section deals with the personnel or human resources development component of that process.

Assumptions stated at the institutional and departmental levels indicated that several strategic goal areas were of paramount importance to the long-term economic viability of the college's service area, hence the college's programs. These strategic goal areas are as follows:

I. Information Processing
   A. Computer Literacy
   B. The Office of the Future or the Paperless Office

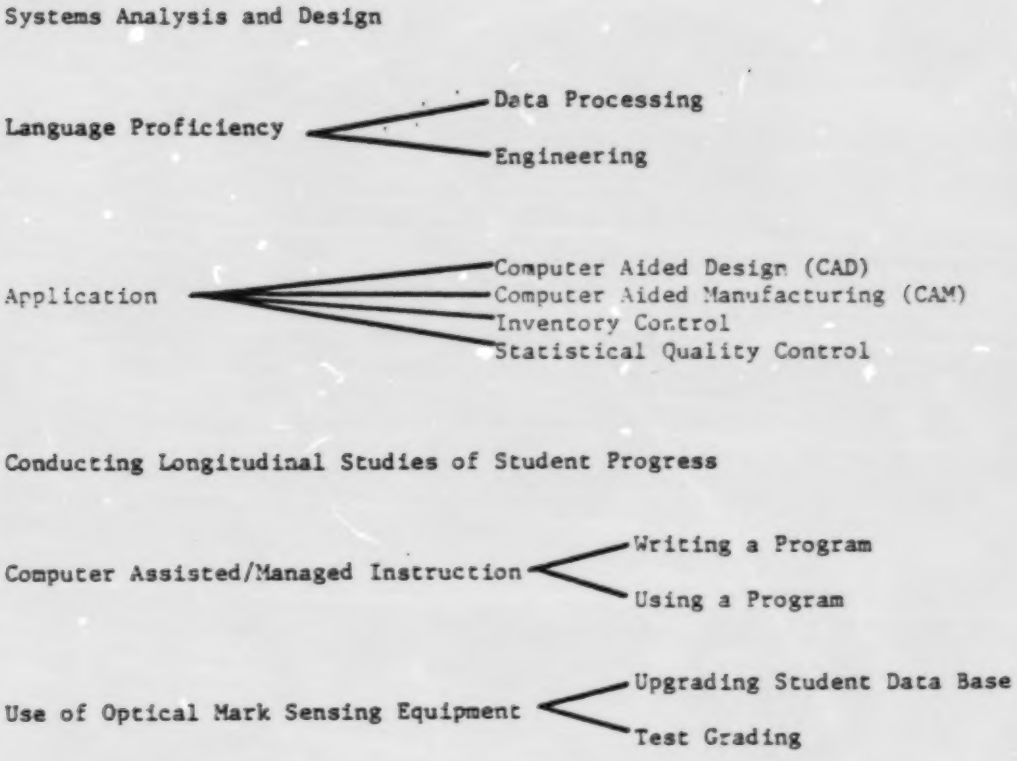
II. Electronic Delivery of Educational Programs and Services
   A. Interactive Diagnostic and Instructional Systems
   B. Telecommunications and Teleconferencing Systems

III. High Technology
   A. Advanced Machine Tool Design
   B. Microelectronics
   C. Robotics
   D. Lightwave Circuit Technology

Computer literacy can range from the ability to read a printout through systems analysis and design. Between these two ends of the computer literacy continuum would be such competencies as (1) the use of word processing equipment as input; (2) use of optical mark sensing equipment in test grading and upgrading the student data base; (3) computer assisted or managed instruction, either using a "canned" program or writing a program; (4) conducting longitudinal studies of student progress; (5) a broad range of applications in business and industry such as statistical quality control, inventory control, computer assisted design (CAD) and computer assisted manufacturing (CAM); and (6) language proficiency in a broad range of data processing and engineering contexts. (See FIGURE 4)

FIGURE 4

ELEMENTS OF THE STRATEGIC GOAL OF
COMPUTER LITERACY



There is a scenario refinement process. Mesuda describes four developmental stages of computerization based on the use of computers at the levels of (1) big science, (2) management, (3) society, and (4) the individual.[25] The big science stage took place in the period between 1945 and 1970 and had a focus on "the state" making extensive use of the computer in large scale projects such as national defense and space exploration. The second stage of computerization had a focus on management-based computerization in both government and business and took place from around 1955 to about 1980. In about 1970 computerization advanced into the third stage, society-based computerization, in which the computer will be used for the benefit of society as a whole. In about 1975 computerization entered its fourth stage of individual-based computers, the beginning of the high mass knowledge creation society. Masuda indicates "that these four stages can not be a series of mere successive developments, but each stage will continue developing even while the succeeding stage is coming into being." Leslie suggests a framework and a course of action for higher education institutions as they progress through various phases of the computerized, technological society.[26] Thus, once the commitment has been made to computer literacy, college personnel search the literature for ways to make the fuzzy image become an operational reality.

The role, then,that futuring plays in this process is quite clear. Assumptions at the institutional and departmental levels about future conditions lead to an institutional commitment relative to selected strategic goal areas. The strategic goal areas are refined to targets of commitment which can then be translated into specific objectives. Having established the institutional commitment to the strategic goal area of computer literacy, each department can then specify specific goals and objectives unique to that unit. Academic departments specify quality improvement objectives in (1) curriculum content, (2) teaching methods, (3) evaluation methods, (4) minimum competency

standards, and (5) interdisciplinary considerations. For example, to what extent can mark sensing equipment be used within a particular department to (a) grade tests, (b) aggregate individual test scores to arrive at a final grade for the course, and (c) tie individual test scores directly to the students records file of the central data base? To what extent do support staff need training in (a) the use of personal computers and terminals (b) reading a printout, or (c) setting up a data display format?

Human resource development activities are reinforced when college personnel see the institution make fiscal resource commitments to agreed upon goals. Equipment decisions amounting to $210,000 were made upon the discussions of these strategic goal areas. The FY 1981-83 biennial budget also included $3½ million, $1,7 m for renovations and $1.8 m for equipment for renovated spaces. This effort, too, is guided by direction growing out of the planning process which includes futuring as one of its major components. Paralleling this activity was the development of a FY 1983-88 Capital Plan. Discussions of the above-mentioned goal areas yielded the following ideas:

1. Computer Assisted Electronics Laboratory
2. Expanded Educational Enrichment Laboratory
3. CAI/CMI for Health Occupations
4. Electronic - Telecommunications System
5. Career Information Center
6. Communications Technology Laboratory
7. Graphics - Commercial Art

These ideas will be developed into a more specific plan of action.

In terms of the annual, operational planning-budgeting process, the College Budget Committee reviews (1) major assumptions, (2) major goals, and (3) the four highest priorities of each department as a prelude to finalizing the operating budget. The agenda for the review session along with presentations by several departments are enclosed as Appendix A. Reference to these strategic goal areas can be found in the presentations by academic departments and instructional support units such as academic affairs, the business office, and the president's office.

Thus futuring as a prelude to goal setting represents a form of individual and collective entrepreneurship, a way of reaching out toward mutually agreed upon targets. For the institution it represents a way of staying in synchronization with the changing needs of the College's service area, and for the individual it represents a way of formulating and revising professional goals.

The time-line that was followed in developing the future-oriented strategic planning and human resource development process is displayed in FIGURE 5. During the second year of this effort the College involved its Board of Trustees and its Program Advisory Committees in the planning process. By that time, respectable drafts of planning assumptions and goals and objectives had been developed so as to maximize the critical analysis from these persons. Since that early introduction to the process in the winter and spring of 1978, these groups have been active participants in the planning process. Program Advisory Committees, comprised of specialists in the technology, review assumptions and goals and objectives. The Board of Trustees reviews high priority goals as a prelude to establishing the next year's budget.

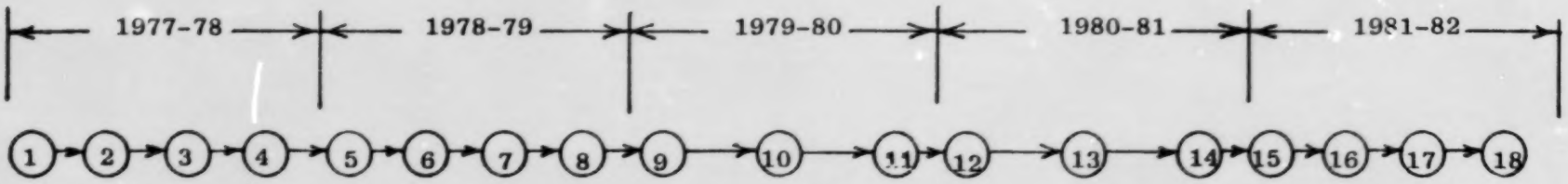
The future-oriented strategic planning and human resource development process has had a ripple effect. College personnel serving on community service agency boards are adopting the process to a broad range of agencies in the area. Systematic work with the Richland County mental health agency led to workshops on the process with the Ohio superintendents on February 21, 1980, and the Ohio School Boards Association and the Professional Association of Retarded on October 30, 1981. Thus, the process is reaching out and touching the lives of many persons and the activities of several organizations.

The Educational and Scientific Importance of This Work

The future of any institution, particularly postsecondary education, rests on the degree to which it meets the needs of the society of which it

FIGURE 5

FUTURE-ORIENTED STRATEGIC PLANNING AND HUMAN RESOURCE DEVELOPMENT PROCESS



1. Institutional Commitment to Comprehensive Planning
2. Specifying Goals and Objectives at Departmental Level
3. Assigning Non Personnel Dollars to Goals and Objectives
4. Formative Evaluation
5. Specifying Assumptions at Institutional and Departmental Levels
6. Board of Trustees Retreat and Program Advisory Committee Review
7. Refining Goals and Objectives and Non-Personnel Dollar Allocations
8. Formative Evaluation
9. Refining of Assumptions and Institutional Goals and Objectives
10. Refining Departmental Assumptions and Goals and Objectives and Non-Personnel Dollar Allocations
11. Demographics Study
12. Meeting on Comprehensive Multi-Year Planning
13. Review of Goals and Objectives by College Budget Committee, March 18, 1981
14. Second Summative Evaluation
15. Refining of Departmental Assumptions and Goals and Objectives
16. Review of Strategic Goal Areas - Info Processing, Electronic Delivery Systems, High Technology
17. Specification of 1983-1988 Capital Plan
18. Review of Goals and Objectives by College Budget Committee, March 18, 1982

is a part. As society changes, so must higher education change. If post-secondary education is to remain viable in the years ahead, it must develop ways to build futuring techniques into its long-range, strategic planning and human resource development processes. Institutions and individuals alike need a way to develop a conceptual framework about the future and a means for diagnosing where they are in relation to that framework. It would appear incontrovertible that maximum synergism is achieved when individual futuring/developmental systems are in harmony and synchronization with the organization futuring/developmental system. Whatever our course of action, a statement from Three Thousand Futures is most appropriate.

> The future holds many unknowns. It also holds a range of already known choices that can be made by those making decisions about higher education.... External, particularly market, pressures will not alone lead to the best results. Internal thought, resolution, and determination are needed to assure that higher education as a whole and institutions individually reach 2000 with capacity to perform undiminished or minimally diminished by the demographic depression. The surrounding environment in the next 20 years will create some special problems that we can already see. It does not, however, determine in advance how well these problems will be solved or how inadequately human choice, or absence of choice, will settle that. A downward drift in quality, balance, integrity, dynamism, diversity, private initiative, research capability is not only possible--it is quite likely. But it is not required by external events. It is a matter of choice and not just of fate. The emphasis should be on "managing of excellence."[27]

APPENDIX A

REVIEW OF GOALS AND OBJECTIVES, March 18
117 - Bromfield

SESSION	TIME		DEPARTMENT	PRESENTER(s)
	8:00 - 8:20	OVERVIEW		H. Fallerius
1	8:20 - 8:30	1876	Associate Degree Nursing	C. Grooms
2	8:30 - 8:40	1880	Practical Nursing	P. Nold
3	8:40 - 8:50	1877	Radiologic Technology	A. Tackett
4	8:50 - 9:00	1879	Respiratory Therapy	M. Neuendorff
5	9:00 - 9:10	1878	Mental Health/MR	M. Devolder
6	9:10 - 9:20	1832	Therapeutic Recreation	M. Smith
7	9:20 - 9:30	1840	Engineering Technologies	H. Goldenberg
8	9:30 - 9:40	1842	Electronics Engineering	J. Francl
9	9:40 - 9:50	1844	Mechanical Engineering	J. Thompson
10	9:50 - 10:00	1845	Drafting and Design	R. Davies
	10:00 - 10:20	BREAK		
11	10:20 - 10:30	1810	Business Technologies	B. McKnight
12	10:30 - 10:40	1811	Accounting	J. Jacquet
13	10:40 - 10:50	1812	Data Processing	T. Breinich
14	10:50 - 11:00	1813	Secretarial Science	S. Purcell
15	11:00 - 11:10	1814	Retail Management	R. Berg
16	11:10 - 11:20	1815	Sales and Marketing	R. Berg
17	11:20 - 11:30	1816	Business Management	R. Berg
18	11:30 - 11:40	1801	Communications	D. Richards
19	11:40 - 11:50	1803	Behavioral	D. Richards
20	11:50 - 12:00		Educational Enrichment Laboratory	C. Grove
	12:00 - 1:00	LUNCH		
21	1:00 - 1:10	1831	Law Enforcement	J. Meek
22	1:10 - 1:20	3303	Admissions	P. Grant
23	1:20 - 1:30	3304	Financial Aid	J. McMullen
24	1:30 - 1:40	3302	Student Records	D. Kraska
25	1:40 - 1:50	3301	Counseling & Guidance	M. Elmendorf
26	1:50 - 2:00	3305	Placement	D. Bonte
27	2:00 - 2:10	3505	Data Processing Center	C. Phillips/ T. Mecurio
	2:10 - 2:20	BREAK		
28	2:20 - 2:30	3300	Physical Activities Center	S. Paynter
29	2:30 - 2:40		Student Activities	H. Thomas
30	2:40 - 2:50		Public Information	
31	2:50 - 3:00		Learning Resources Center	J. Cobes
32	3:00 - 3:10		Community Educational Services	W. Groff
33	3:10 - 3:20	3010-3520	Academic Affairs	W. Groff
34	3:20 - 3:30		Ohio Technology Transfer Organization	R. Clemens
35	3:30 - 3:40		Nursing Home Area Training Center	T. Blaney
36	3:40 - 3:50	3515	VP Administration	G. Rustad
37	3:50 - 4:00	3530	Business Office	D. Johnson
38	4:00 - 4:10	3510-3535	President's Office	H. Fallerius
	4:10	WRAP-UP		H. Fallerius

PRESENTATION ON
DRAFTING & DESIGN (1845)
TO THE
COLLEGE BUDGET COMMITTEE
MARCH 18, 1982

A. MAJOR ASSUMPTIONS

1. The need for drafting technicians will continue to increase.
2. The need for CAD/CAM technology will increase in industry.
3. Students will seek diversified training between drafting and design and other technologies.
4. The Drafting & Design technology will continue communications with industry to understand their changing needs.

B. MAJOR GOALS FOR 1982-83

1. To develop minimum competency standards
2. To review curriculum content.
3. To implement the new computer-aided-design equipment to its fullest potential.
4. To increase student enrollment.

C. FOUR HIGHEST PRIORITIES

1. Faculty development of computer literacy.
2. Improvement of student/instructor relationship through better advising.
3. Development of useful new course content and continued examination of our current course content.
4. Revision of course syllabi to list minimum competency standards.

PRESENTATION ON
INSTRUCTIONAL SERVICES (3019) AND ACADEMIC AFFAIRS (3520)
TO THE
COLLEGE BUDGET COMMITTEE
March 18, 1982

A. MAJOR ASSUMPTIONS
1. Students attending NCTC in the future will have even more diverse needs than those currently enrolled at the College. If we are to provide quality education to these students, we must better understand how to diagnose these differences.
2. Because student needs differ, the way the College offers its curriculum must be flexible.
3. The vast majority of persons residing in North Central Ohio do not understand the mission of NCTC.
4. The management of the College can be improved.

B. MAJOR GOALS FOR 1982-83 (See reverse side for a more detailed plan of action)
1. To promote human resource development of full-time and part-time personnel, particularly as it relates to diagnosing student competencies and alternative teaching methods including electronic delivery of educational services.
2. To encourage the development of flexible curricula.
3. To continue to attempt to enhance the image of the College and communicate its mission to persons in the service area.
4. To promote management improvement within the College.

C. FOUR HIGHEST PRIORITIES
1. Human Resource Development (Full-time and Part-time Personnel)
   a. Diagnosing Students Competencies as Prerequisite to a Course
   b. Diagnosing Competencies Within a Course
   c. Student Learning Preference/Styles
   d. Diversity in Teaching Methods
   e. Computer Aided Instruction
   f. Evaluation of Student Competencies
2. Curriculum Flexibility
   a. Directed Study As a Learning Method
   b. Portfolio Development - Contract Learning
   c. Electives
   d. Associate of Technical Studies
   e. Associate of Individualized Studies
   f. Independent Study as a Course
3. Functional Relations
   a. External Communications
   b. Positive Image Building
   c. Articulation with High Schools
   d. Economic Development and Service to Industry
   e. Community Educational Services
4. Management Development
   a. Multi-term Scheduling/Registration
   b. Integrated Management Information System
   c. Comprehensive, Multi-Year Planning
   d. Time Management/Management Strategic Protocol

PRESENTATION TO THE COLLEGE BUDGET COMMITTEE ON
Planning Assumptions for Business Office Departments
3400, 3401, 3405, 3410, 3525, 3530
FISCAL YEAR 1982 - 1983

A. MAJOR ASSUMPTIONS

A-1 The demand for accountability given the conditions of the 1980's is likely to increase rather than diminish.

A-2 The position of the general assembly requiring the Board of Regents to study costs, service to part-time students, subsidy formula, enrollment attrition, institutional management, and excellence will impact upon the workload of the administration at the College.

A-3 Given decreasing sources of funding, financial accountability will develop a greater relationship to program accountability, managerial accountability, and social accountability, and will not stand alone.

A-4 Emphasis on professional growth in the area of computer competency as it applies to the Business Office personnel will increase necessitating additional budgetary support.

A-5 As additional funds are sought, the necessity for financial expertise and additional capabilities in the Business Office will also be required.

B. MAJOR GOALS FOR 1982-83 (See reverse side for a more detailed plan of action)

B-1 To utilize computer data base information for completing college, state and federal reports in the area of financial data, space data, and personnal data.

B-2 To provide the College with a long term budget forecasting program.

B-3 To increase productivity in the Word Processing Center.

B-4 To continue to strive for a more efficient means of producing prompt, quality, courteous, copying service to OSU-M and NCTC students, faculty and staff.

C. FOUR HIGHEST PRIORITIES

C-1 To select and install, utilize and make necessary revision of financial software package during the 1982-83 fiscal year.

C-2 To study, during the coming years, various software packages which might provide the necessary vehicle for long-term budget forecasting relative to the needs at NCTC.

C-3 To upgrade word processing equipment within the next twelve months to increase productivity, quality and versatility.

C-4 To look toward increased demands in the future which will require us to further develop our skills, techniques, and procedures to meet duplicating needs.

PRESENTATION ON
PRESIDENT'S OFFICE (3510) AND BOARD OF TRUSTEES (3535)
TO THE
COLLEGE BUDGET COMMITTEE
MARCH 18, 1982

A. MAJOR ASSUMPTIONS

1. The nation's economy will see recovery beginning in the first quarter of 1983 and Ohio's recovery will lag behind national economic recovery.

2. Inadequate state funding for higher education will continue to restrict budget expansion for 1982-1983. Some relief will come during the 1983-1984 academic year as a new Governor takes office.

3. Limited funding and institutional growth will require greater management skills at all levels.

4. The development and application of high technology shall accelerate at an increasing rate.

B. MAJOR GOALS FOR 1982-1983

1. To allocate limited funds to maximize and maintain institutional quality.

2. To continue to keep state and federal legislators aware of funding needs.

3. To become more cost effective through more sophisticated management skills.

4. To prepare the College to take a leadership role and be recognized as a high technology training center.

C. FOUR HIGHEST PRIORITIES

1. Maintain institutional quality.
   a. Keep programs relevant with high technology developments.
   b. Encourage faculty professional development.
   c. Promote in-service training.

2. Funding needs
   a. Letters and visits to legislators.
   b. Have legislators visit campus.
   c. Have Board of Trustees contact legislators.
   d. Have Advisory Committee contact legislators.
   e. Have institutional employees contact legislators.

3. Cost effective management
   a. Concentrate management skills toward NCTC
   b. Promote participative management climate
   c. Program review
   d. Retention effort

4. High technology training center
   a. Continue to request high technology capital improvement facilities during the 1983-1988 Capital requests.

FOOTNOTES

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2 Yoneji Masuda, The Information Society as Post-Industrial Society (Tokyo, Japan: Institute for the Information Society, 1981).

3 How TAP Works (Washington, D.C.: American Council of Life Insurance, 1978).

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5 Trends 2000 - New Challenges, New Needs, New Images: America in Transition (Washington, D.C.: Association of American Colleges, 1979).

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7 Alternative Scenarios of the American Future (New York: Future Directions for a Learning Society, The College Board, 1979).

8 The Exciting 80's: A Kiplinger Forecast for the Next Decade (Washington: The Kiplinger Washington Editors, Inc., 1979).

9 Productivity in the Changing World of the 1980's: The Final Report of the National Center for Productivity and the Quality of Working Life (Washington: National Center for Productivity and Quality of Working Life, 1978).

10 Science and Technology: Annual Report to the Congress (Washington, D.C.: National Science Foundation, 1979).

11 Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention (Washington, D.C.: Public Health Service, 1979).

12 The Essential Community: Local Government in the Year 2000 (Washington, D.C.: International City Management Association, 1980).

13 The Global Report to the President of the United States (Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office, 1980).

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The American Economy
Science and Technology
Energy, Natural Resources, and the Environment in the Eighties
Urban America in the Eighties
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The United States and the World Community
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(Washington D.C.: U.S. Government Printing Office, 1980)

15 America Renewal (Chicago: Time Inc., 1981).

16 "Technology Forecasts and Technology Surveys" 205 South Beverly Drive, Beverly Hills, California 90212.

17 Federal Laboratory Consortium For Technology Transfer, China Lake, California 90212.

18 Futuremics, Inc., 1629 K Street NW, Suite 5129, Washington, D.C. 20006.

19 World Future Society, 4916 St. Elmo Avenue, Washington, D.C. 20014.

20 Technology Transfer Society, NIAC-USC Denney Research Bldg, Los Angeles, CA 90007.

21 The Chronicle of Higher Education, January 7, 1980, p. 8.

22 Carol Frances, College Enrollment Trends: Testing the Conventional Wisdom Against the Facts (Washington, D.C." American Council on Education, 1980.

23 Howard R. Bowen, Adult Learning, Higher Education, and the Economics of Unused Capacity (New York: College Entrance Examination Board, 1980).

24 Writings on trend analysis are as follows:

Warren H. Groff, "From Autonomy to Regional Systems: Multi-Institutional Responses to Societal Problems and Implications For Intermural Planning," presented at The Institutional Development Workshop by The Council for Interinstitutional Leadership Conference, April 18, 1977.

Warren H. Groff, "Planning Technical Education For the Eighties," presented at the Seventeenth Annual National Conference on Technical Education, March 27, 1980.

Warren H. Groff, "Trend Analysis As A Management Tool In Planning Technical Education In The Eighties," presented at the First Global Conference on The Future of the World Future Society, July 20-24, 1980.

Warren H. Groff, "Environmental Trend Analysis and Strategic Decision-Making: A New Role for Collegiate Cooperation," presented at the Annual Meeting of the Council for Interinstitutional Leadership, October 26-28, 1980.

Warren H. Groff, "Trend Analysis As A Component of Comprehensive Institutional Planning", a paper presented at the workshop on Comprehensive Institutional Planning sponsored by the National Alliance of Postsecondary Education Institutions/Districts of the National Center for Research in Vocational Education, September 14-15, 1980.

25 Yonji Masuda, op. cit., pp. 36-39.

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